

FAQ – Cybersecurity Jobs ‘Heat Map’ Initiative

What is the Cybersecurity Jobs ‘Heat Map’ initiative? How did this idea come about?

The goal of this initiative is to further the understanding of the rapidly evolving cybersecurity jobs landscape. This objective will be accomplished through the creation of a set of interactive maps, tools, analysis, reporting, career pathways, and more.

This idea originated through the intersection public and private sector discussions covering the many challenges and questions associated with the cybersecurity jobs landscape. These discussions led to the recognition of the need for new ways to assess and ultimately improve the cybersecurity talent pipeline.

Research by Burning Glass, the Bureau of Labor Statistics, and CompTIA have shown that cybersecurity jobs are in high and growing demand and that a critical shortage of qualified workers exists across the nation. Specifically, according to Burning Glass’ research, postings for cybersecurity jobs have grown 91 percent from 2010 to 2014. This growth rate is over three times faster than all Information Technology (IT) jobs.

Similarly, the Bureau of Labor Statistics Occupational Outlook reports that the number of information security analyst workers is expected to grow 37 percent from 2012 to 2022, a rate much higher than the overall occupation growth rate.

Finally, according to CompTIA research, 74% of businesses rate cybersecurity a greater concern today than it was two years ago. The higher level of concern can be attributed to greater levels of interconnectivity, new forms of malware and advanced persistent threats, more deceptive methods of social engineering, and the many types of risk associated with human error.

What is the need for the Cybersecurity Jobs ‘Heat Map?’ What problem does it address?

While data sources and reports covering various aspects of the cybersecurity jobs market already exist, a number of gaps and shortcomings remain. These gaps can lead to inefficiencies, extra costs, wasted time, or missed opportunities for employers, job seekers and other stakeholders.

This initiative will build upon existing efforts to expand the integration of data covering the supply of cybersecurity workers with the demand for cybersecurity workers.

Who are the potential users of the map?

With ever greater rates of interconnectivity and digitalization, cybersecurity now touches every business, government agency, worker, or citizen on some level. Consequently, there are many potential users of this map, including: employers, job seekers, academic institutions, training providers, guidance counselors, and public policy makers.

What is the role of NIST and NICE in this initiative?

This project is supported by the National Initiative for Cybersecurity Education (NICE), a program of the National Institute of Standards and Technology in the U.S. Department of Commerce, under Grant # 60NANB15D267

What is the role of CompTIA in this initiative?

CompTIA serves as one of the project co-leads. CompTIA will provide expertise in the areas of workforce development, data analytics, visualization, and project management.

The Computing Technology Industry Association (CompTIA) is a not-for-profit trade association serving the needs of technology professionals, technology companies, and aspiring technology workers. With over 2 million certifications issued to date, CompTIA is the global leader in vendor-neutral certifications, providing workers of all levels a mechanism to develop and validate their technical skills. CompTIA has invested millions in resources, initiatives, research, and philanthropy to advance the IT jobs landscape.

What is the role of Burning Glass in this initiative?

Burning Glass serves as one of the project co-leads. Burning Glass will provide expertise in the areas of data analytics, software development, visualization, and project management.

Burning Glass is a leading labor market analytics firm, and is playing a growing role in informing the global debate on education and the workforce. Founded in 1999 with the goal of developing the world's leading technologies for matching people with jobs, its technologies deliver insight across workforce and economic development, career exploration and counseling, and job matching. Burning Glass solutions drive critical workforce, education, and economic development initiatives for more than a dozen state and national governments, as well as numerous educational institutions, regional agencies, global recruitment agencies, major employers, and job boards.

Beyond the parties above, what other stakeholders are involved in providing input and guidance?

Because of the expansive nature of cybersecurity, it is critical to have input from the many stakeholders involved in the space. To formalize this input, an advisory committee was formed at the kick-off of the project. The committee includes representation from government, academia, not-for-profit organizations, technology companies, and businesses that invest heavily in cybersecurity workforce development.

The advisory committee held its first meeting at the [NICE Conference and Expo](#) on November 3, 2015 in San Diego, CA. The next meeting will take place during Q1 2016.

What are the key parameters of this initiative? What elements are considered outside the scope of this initiative?

To start, the initiative will be U.S. focused only. There may be the option to expand internationally at some point in the future, but that is still to be determined.

While this map will have the ability to meet the needs of a wide range of users, it is not the type of initiative that allows for custom work for specific groups or individuals. It should be thought of as a public platform that can be used and leveraged, rather than an entity providing custom consulting services.

What does the short-term and longer-term project plans look like?

In the next 90 days, the project leads will continue to refine the technical specs and data specs in preparation for the development phase. The advisory committee will continue to review use cases, user needs, and other strategic considerations.

Longer-term, the project will follow the standard development path, with various iterations of development and review.

If I have ideas or feedback, is there a mechanism for submitting them?

Please contact NICE.NIST@nist.gov